

IN THE UNITED STATES DISTRICT COURT FOR THE
SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

SIERRA CLUB, §
§
Plaintiff, §
§
v. § CIVIL ACTION NO. 4:09-cv-00692
§
UNITED STATES FEDERAL §
HIGHWAY ADMINISTRATION, et al. §
§
Defendants. §

STATE DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

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STATE DEFENDANTS' MOTION FOR SUMMARY JUDGMENT

COME NOW the Texas Transportation Commission, and Deirdre Delisi, in her official capacity as Chair of the Texas Transportation Commission, (collectively "State Defendants") by and through the undersigned Counsel and hereby file State Defendants' Motion for Summary Judgment pursuant to Federal Rule of Civil Procedure 56.

I. NATURE AND STAGE OF THIS CIVIL ACTION

Plaintiff Sierra Club ("Plaintiff") filed its Original Complaint on March 9, 2009, contending that Defendants¹ made arbitrary and capricious decisions concerning Segment E of the Grand Parkway project which violated the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. § 4321-4375, its implementing regulations, and the Administrative Procedure Act ("APA"),

¹Although this is the State Defendants' motion, the term "Defendants" refers to the various federal and state defendants who played key roles in the preparation of the approved FEIS which is the subject of this suit. The responsibilities of FHWA and state highway agencies for compliance with NEPA are generally outlined in 23 Code of Federal Regulations ("C.F.R.") § 771.107 and § 771.109. These regulations contain FHWA's procedures for implementing NEPA and the Council on Environmental Quality ("CEQ") regulations. Under both FHWA and CEQ regulations, state highway agencies generally prepare the environmental impact statement and other environmental documents for a highway project using federal funds with the FHWA furnishing guidance, participating in the preparation, and independently evaluating and approving the documents. 23 C.F.R. § 771.109(c)(1).

5 U.S.C. §§ 701-706. Doc. No. 1 (“Pl.’s Compl.”). These allegations include, but are not limited to, failing to: consider or disclose all reasonable alternatives; properly assess impacts of the project on floodplains and wetlands; disclose significant air impacts, noise impacts, and safety risks; and consider indirect, secondary, and cumulative impacts.

On October 15, 2009, Plaintiff filed several motions seeking to, among other requests, to: (1) expand upon two of its original causes of action; (2) add five new causes of action relating to Defendants’ Re-Evaluation of the project in response to a design change; and (3) add Houston Audubon as a Plaintiff and Harris County as a Defendant. On November 25, 2009, the Court ruled on the above motions, ordering that: Houston Audubon may be added as a Plaintiff,² but that Harris County may not be added as a Defendant; Plaintiff may not expand upon original causes of action numbers 1 and 2; and Plaintiff may not add five new causes of action. State Defendants now timely file their Motion for Summary Judgment in response. The Administrative Record for this case has been filed and was supplemented on October 16, 2009.

II. STATEMENT OF ISSUES

Plaintiff seeks injunctive and other relief under the APA and NEPA. Plaintiff alleges that numerous decisions by Defendants regarding Segment E were arbitrary, capricious, an abuse of discretion, or were not otherwise in accordance with the law. Specifically, Plaintiff raises the following issues in six causes of action, alleging that in completing the Segment E FEIS, Defendants violated NEPA, NEPA regulations, and the APA by failing to:

- (1) Adequately and lawfully analyze alternatives;
- (2) Properly assess impacts on hydrology, drainage, floodways, and floodplains;
- (3) Disclose significant impacts and indirect effects on wetlands;

²To date, Plaintiff has not filed its First Amended Complaint to add Houston Audubon as a Plaintiff.

- (4) Disclose significant air impacts and safety risks;
- (5) Properly disclose noise impacts; and
- (6) Consider indirect, secondary, and cumulative impacts.

III. STATEMENT OF FACTS

The Grand Parkway was proposed in 1961 by Harris County and the City of Houston Planning Commission as a 180-mile roadway loop around the Houston metropolitan area, intended to address transportation deficiencies. AR 017909.³ Its proposed design is a four-lane, controlled access toll road with intermittent frontage roads located within a 400-foot right-of-way. *Id.* To facilitate planning, design, and construction, Grand Parkway is divided into 11 segments, named by letters A through I-2. AR 017911; *see* <http://www.grandpky.com/home/>. The litigation and this Motion for Summary Judgment relate only to Segment E.

In 1993, the Texas Department of Transportation (“TxDOT”) and the Federal Highway Administration (“FHWA”) filed a Notice of Intent (“NOI”) to prepare an Environmental Impact Statement (“EIS”) for Segment E. AR 018301. Grand Parkway Segment E will be located in the northwest Houston/Katy area, running from IH-10 W to US 290, and will be approximately 15.2 miles long. It is included in, and is consistent with, the 1995 National Highway System designation; Texas’ Statewide Transportation Improvement Program (“STIP”); the Harris County Major Thoroughfare and Freeway Plan (“MTFP”); the 2025 Long-Range Regional Transportation Plan (“RTP”); and the Transportation Improvement Program (“TIP”). AR 018303-018304.

³The Administrative Record consists of approximately 730 documents comprising approximately 26,000 pages. References to the Administrative Record will be to “AR” and the page number or range of page numbers, e.g., AR 000001 through AR 000012. The original AR was filed on September 15, 2009, and contained 715 documents, numbered AR 000001 through AR 025036. The AR was supplemented on October 15, 2009, adding 16 new documents, numbered AR 025037 through AR 026458.

During the project development process, a Study Team⁴ was formed. Team members conducted several studies to determine the need for and purpose of the project, analyze various alternatives, determine the affected environment, and study indirect and cumulative effects. AR 018304. The Study Team was responsible for organizing information obtained from the studies and from the public workshops, and clearly presenting the information in the graphs and tables that appear throughout the Final Environmental Impact Statement (“FEIS”). AR 018305; *see, e.g.*, AR 018385 (ambient noise level table for Segment E project area); AR 018391 (Segment E Project Area vegetative communities summary); AR 018584 (conceptual model showing interplay of land use, resources, cumulative impacts and potential effects).

To facilitate the process of determining and planning the Preferred Alternative Corridor and Alternative Alignment, the Study Team established a 300 square-mile study area. AR 018308. A Geographic Information System (“GIS”) was used to efficiently collect, organize, analyze, and display large amounts of environmental data gathered in the study area, and to assist in analyzing the expressed concerns of several environmental resource agencies. *Id.* This information was used to create environmental resource maps so that sensitive resources could be identified and avoided, or if unavoidable only minimally impacted, when developing alternative corridors. *Id.* State Defendants also conducted extensive agency and public coordination that included public workshops, public scoping meetings,⁵ and coordination with resource agencies such as the

⁴Members of the Study Team include representatives from: Michael Baker Jr., Inc., a professional engineering and consulting service; PBS&J, which provides expertise in engineering, environmental science, architecture, planning, and construction; Brown and Gay Engineers, Inc., which provides civil engineering and surveying services for drainage, traffic, and transportation projects (among others); and Community Awareness Services, Inc. *See* AR 017900.

⁵Public scoping meetings were held in September 1993 and February 2000 to determine the scope of issues related to selecting a Preferred Alternative Corridor for the Grand Parkway. AR 018641–018647.

Environmental Protection Agency (“EPA”), Texas Parks and Wildlife Department (“TPWD”), United States Fish and Wildlife Service (“USFWS”), and the United States Army Corps of Engineers (“USACE”). *See, e.g.*, AR 018130.

In April 2003 the Texas Transportation Commission stated in Minute Order 109226 that, “the completion of the Grand Parkway is essential and urgent, as construction of the project would alleviate congestion and improve traffic flow in the Houston metropolitan area and the surrounding region . . .” AR 017910. In November 2007, State Defendants approved the Segment E FEIS and FHWA issued its Record of Decision (“ROD”) on June 24, 2008. AR 023722.

On March 9, 2009, Plaintiff filed suit pursuant to the APA and NEPA. Plaintiff sued the Texas Transportation Commission and Deirdre Delisi, in her capacity as Chair of the Texas Transportation Commission. The Texas Transportation Commission oversees and directs the operations of TxDOT, the state agency responsible for administering the state highway system in Texas. Plaintiff also sued a number of federal defendants.⁶ Plaintiff seeks declaratory and injunctive relief, including an order that Defendants conduct a Supplemental Environmental Impact Statement to cure alleged violations of NEPA, its implementing regulations, and the APA.

In June 2009, TxDOT prepared a Re-evaluation of the FEIS in response to a design revision that occurred after the issuance of the ROD. AR 023722. The revision, which requires no additional right-of-way or easements, involves an additional grade separation to be constructed at the future

⁶FHWA is an agency within the United States Department of Transportation that administers federal aid programs to States for highway construction, rehabilitation and other transportation projects. As such, the FHWA is the agency responsible for approving state transportation projects for federal funding, and ensuring compliance with myriad federal statutes and regulations, including but not limited to NEPA. Jeffrey F. Paniati is the Administrator of the FHWA, and Janice W. Brown is the Division Administrator of the FHWA, Texas Division, while Ray LaHood is the Secretary of Transportation of the United States Department of Transportation.

intersection of the Grand Parkway and West Road. AR 023726. In response to this design change, the Re-Evaluation considered how the revision may affect the environmental impact analysis in the FEIS and whether a new and comprehensive analysis of the entire project was needed. AR 023722. The original schematic design of the Grand Parkway project called for both cash and electronic toll collection facilities at this location, which prohibited the construction of a West Road overpass to traverse the Grand Parkway. AR 023726–023727. However, the design was subsequently converted to an all-electronic toll collection facility, thus removing design constraints and allowing for the construction of an overpass. *Id.* The remainder of the Segment E project remains unchanged. AR 023722. After an evaluation of the design change’s potential impacts on many of the environmental and social resources covered in the FEIS, as well as consideration of updated federal regulations and guidance, the Re-Evaluation reached the conclusion that no substantive change in Segment E’s environmental impact would occur and thus no new study was required. AR 023751.

IV. SUMMARY OF ARGUMENT

The comprehensive four-volume EIS took years to develop and contains data collected from a multitude of carefully performed studies by a variety of technical professionals. The conclusions drawn are well-informed and take into consideration all reasonable scenarios. Defendants fully complied with NEPA, NEPA regulations, and the APA in their analyses:

Alternatives: Defendants conducted studies to analyze the viability of potential alternatives for three distinct phases of the project’s development: corridor and alternative identification (Corridor Study); assessment of need for Segment E (Transportation Mode Study); and preferred alignment identification (Alternative Alignment Study). Defendants also analyzed the potential cumulative traffic impacts for both the build and no-build alternatives; studied traffic volumes for

the years 2000, 2010, 2015, and 2025; and confirmed the need exists to build the Grand Parkway because a decrease in traffic volume for all road types in the study area will result if the Grand Parkway, including Segment E, is constructed. Defendants further determined that studying and constructing Segment E as an individual segment within the Grand Parkway project is justified because Segment E can function alone as an independent facility, even if the rest of Grand Parkway was not constructed, especially given Segment E's metropolitan proximity and purpose.

Hydrology, drainage, floodways and floodplains: Defendants anticipated how Segment E's construction would affect drainage patterns, accounted for all potentially affected streams; used maps and acreage totals to assess the floodplain and floodway impact of each alternative alignment of Segment E; and explained potential mitigation measures.

Wetlands: Defendants identified important wetlands and considered measures to avoid them or minimize unavoidable impacts; inventoried all environmental resources in the project area, including wetlands; and considered several mitigation options. A single, definitive mitigation measure will be selected at the appropriate phase of design.

Air and safety: Defendants measured current levels of highway pollutants, and then used an EPA model to estimate future carbon monoxide ("CO") levels for the years 2012 and 2025. The models suggested that local concentrations of CO for those years are not expected to exceed national standards. Defendants disclosed potential health impacts attributable to living near a highway; presented information on current and future levels of Mobile Source Air Toxics ("MSAT"), as well as assumptions on what effect the Segment E project may have on MSAT levels; and collected data according to EPA standards, presenting it to the public in a clear manner.

Noise: Defendants conducted a preliminary noise analysis in 2002 at various noise receiver

locations along each of the proposed alternative alignments, and then performed a similar analysis later along the selected alternative alignment; measured existing noise levels and estimated future noise levels; and considered noise abatement measures in terms of feasibility and reasonableness.

Indirect and cumulative impacts: Defendants followed TxDOT's eight-step approach to identifying and analyzing cumulative impacts, and the NCHRP 466 Report⁷ to guide consideration of indirect impacts. Seventy pages of the FEIS analyze the indirect and cumulative effects of Segment E. The study includes input from an Expert Panel, who forecasted future land use scenarios and developed a land use analysis to predict how land in the project area might develop under both Build and No-Build alternatives. Potential impacts on soil, social activity, economics, wildlife, and aesthetics were also considered. Defendants concluded that growth will continue whether or not the Grand Parkway is built, and while building Grand Parkway may affect dispersion patterns of growth, overall Grand Parkway will compliment the development pattern and effects. AR 018638.

Public involvement: Several of the conclusions reached in the FEIS rely substantially on extensive public scoping efforts. Multiple public workshops were organized to gather input on important issues such as existing traffic conditions, expected usage of the Grand Parkway, and potential alternatives relating to all phases of the planning process. Using suggestions from the public involvement process, Defendants were able to assess all reasonable concerns and issues as part of taking the requisite "hard look" at environmental impacts. Defendants' decision was reasonable in that it complied with NEPA, NEPA implementing regulations, and the APA, and therefore was not arbitrary or capricious.

⁷Transportation Research Board's National Cooperative Highway Research Program *Report 466: Desk Reference for Estimating the Indirect Effect of Proposed Transportation Projects* (TRB, 2002), hereinafter "NCHRP 466 Report."

V. STANDARD OF REVIEW

The Court has jurisdiction to hear this matter pursuant to 28 U.S.C. Section 1331 (Federal Question Jurisdiction), and Section 704 of the APA (Actions Reviewable). The Supreme Court has clearly enunciated the role of a court in reviewing administrative actions pursuant to the APA. The appropriate standard for judicial review is whether the agency decision is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. *Camp v. Pitts*, 411 U.S. 138, 142, 93 S. Ct. 1241, 1244 (1973).

Under the APA, courts are limited in their review to the Administrative Record. *Fla. Power & Light Co. v. Lorian*, 470 U.S. 729, 743, 105 S. Ct. 1598, 1607 (1985). In reviewing an agency's NEPA decisions, a reviewing court's "role is simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that the decision is not arbitrary and capricious." *Baltimore Gas v. Natural Res. Def. Council*, 462 U.S. 87, 97–98, 103 S. Ct. 2246, 2252 (1983). While an agency's decision-making must receive plenary review, *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 410, 91 S. Ct. 814, 820 (1971), *overruled on other grounds by Califano v. Sanders*, 430 U.S. 99, 105, 97 S. Ct. 980, 984 (1977), a court may not require agencies "to elevate environmental concerns over other appropriate considerations," *Strycker's Bay Neighborhood Council, Inc. v. Karlen*, 444 U.S. 223, 227, 100 S. Ct. 497, 500 (1980). The burden of demonstrating that the agency was arbitrary or capricious falls on the plaintiff. *See Sierra Club v. Marita*, 46 F.3d 606, 619 (7th Cir. 1995).

A court's role in reviewing agency decision-making is limited. A reviewing court "is not to determine the *correctness*, in some ultimate sense, of an agency's actions," but "is limited to determining only the *legality* of the challenged action." *Di Vosta Rentals, Inc. v. Lee*, 488 F.2d 674,

678 (5th Cir. 1973)(emphasis in original). In short, a reviewing court may not substitute its own judgment for that of the agency. *Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council*, 435 U.S. 519, 555, 98 S. Ct. 1197, 1217 (1978); *Overton Park*, 401 U.S. at 416, 91 S. Ct. at 824. Once a court is satisfied that an agency took the requisite “hard look,” the court’s review is at an end. *See Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21, 96 S. Ct. 2718, 2730 (1976); *Stop H-3 Ass’n v. Dole*, 740 F.2d 1442, 1464-65 (9th Cir. 1984).

Summary judgment is an appropriate procedure for resolving a challenge to a federal agency’s administrative decision when review is based upon the administrative record, even though the court does not employ the standard of review set forth in Federal Rule of Civil Procedure 56, which allows the court to consider the pleadings, outside discovery, and any affidavits on file in deciding whether a genuine issue of material fact exists. *Fund for Animals v. Babbitt*, 903 F. Supp. 96, 105 (D. D.C. 1995). In considering this motion for summary judgment, the Court must limit its review to the facts in the Administrative Record. *Camp*, 411 U.S. at 142, 93 S. Ct. at 1244.

The facts and the inferences to be drawn from the record are to be viewed in the light most favorable to the nonmoving party. *Roberts v. Cardinal Servs.*, 266 F.3d 368, 373 (5th Cir. 2001) (citing *Olabisiomotosho v. City of Houston*, 185 F.3d 521, 525 (5th Cir. 1999)). The burden of proving an agency decision was arbitrary or capricious rests with the party seeking to overturn the decision. *New Mexico ex rel. Richardson v. Bureau of Land Mgmt.*, 565 F.3d 683, 704 (10th Cir. 2009).

VI. ARGUMENT

A. Defendants thoroughly and adequately evaluated all reasonable and prudent alternatives relating to Segment E.

Plaintiff alleges the alternatives analysis is inadequate and unlawful. Pl.’s Compl. ¶¶ 53–57.

1. Defendants thoroughly examined a number of reasonable alternatives.

Plaintiff asserts that Defendants were required to assess all reasonable alternatives in detail, and that Defendants failed in this regard by eliminating viable alternatives. Pl.'s Compl. ¶ 54. Plaintiff maintains Defendant impermissibly chose from only one build alternative and a no-build alternative. *Id.* Plaintiff also contends that Defendants failed to consider an adequate range of alternatives. Pl.'s Compl. ¶ 57. Plaintiff further asserts that Defendants' decision-making was arbitrary, capricious, and an abuse of discretion. *Id.*

NEPA requires a detailed statement must be prepared on alternatives to the proposed action. 42 U.S.C. § 4332(2)(C). Generally, this requires considering each potential alternative and its environmental impacts against the established need for and purpose of the project in question. *See Miss. River Basin Alliance v. Westphal*, 230 F.3d 170, 174 (5th Cir. 2000). The expressed needs for and purposes of Segment E include: (1) improving the predominantly east-west or north-south transportation infrastructure by providing circumferential service; (2) expanding the capacity of existing transportation infrastructure to meet future projected demand; (3) addressing safety concerns posed by current roadway conditions in the project area; and (4) accommodating population and economic growth. AR 018312–018314. The Administrative Record, specifically the FEIS prepared by TxDOT and reviewed and approved by FHWA, provides ample documentary evidence that a multitude of alternatives were comprehensively and thoroughly reviewed, considered and addressed in light of the need for and purpose of the Segment E project.

Plaintiff's allegations not only misrepresent the evidence of detailed alternatives analysis contained in the Administrative Record, but they also ignore the law. The statutory and regulatory requirement that an agency must consider "appropriate" and "reasonable" alternatives does not

dictate a minimum number of alternatives that an agency must consider. *Grand Canyon Trust v. U.S. Bureau of Reclamation*, 623 F. Supp. 2d 1015, 1026-1027 (D. Ariz. 2009) (quoting *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1245-46 (9th Cir. 2005)(agency's consideration of only two reasonable alternatives—no action and a preferred alternative—sufficient under NEPA)); *see also Akiak Native Cnty. v. U.S. Postal Serv.*, 213 F.3d 1140, 1148 (9th Cir. 2000). Indeed, courts have held an EIS adequate where only one alternative was discussed, *Tongass Conservation Soc'y v. Cheney*, 924 F.2d 1137, 1140–1142 (D.C. Cir. 1991), and have even recognized that an agency's preference for a particular alternative from the outset of the NEPA process does not, by itself, violate NEPA. *Conservation Law Found. v. Fed. Highway Admin.*, 630 F. Supp. 2d 183, 202 (D. N.H. 2007)(citing *Env'l. Def. Fund, Inc. v. U.S. Army Corps of Eng'rs*, 492 F.2d 1123, 1129 (5th Cir. 1974)). Courts will not spend time delineating a proper number of alternatives to be considered, but rather will focus on the scope and substance of the project and whether or not any alternatives were discussed in reasonable detail. *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991); *Native Ecosystems Council*, 428 F.3d at 1246; *City of Carmel-by-the-Sea v. U.S. Dep't of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1997).

The FEIS devotes two full sections, one each in Volumes I and II, to a detailed discussion of studies that analyzed the various design alternatives proposed at different stages of the Segment E planning process. In all, three major alternatives studies were conducted with substantial assistance from the Study Team in order to determine (1) the proper corridor for Segment E to follow (“Corridor Study”); (2) whether a no-build or build alternative was more appropriate (“Transportation Mode Study”); and (3) the proper alignment for Segment E within the preferred corridor assuming a build alternative was the appropriate course (“Alternative Alignment Study”).

a. The Corridor Study.

Before determining the exact route of Segment E, the Study Team first had to determine which general area within the region was the most environmentally conducive to a highway. To this end, the Corridor Study set out to define the broad geographical band (5,000 feet in width) within which the specific route of Segment E would later be determined in the Alternative Alignment study. AR 018326. After an extensive process involving resource mapping, an examination of environmental constraints, and public hearings, the Study Team produced three potential alternative corridors. *Id.*; see AR 018705. Each corridor was then examined using an analysis of possible hybrid combinations in areas where proposed corridors overlapped—areas called “reaches.” AR 018325. In addition to the original three alternative corridors and in response to public comment, the Study Team created two new possible alternative corridors, in part to avoid federally protected Texas prairie land and floodplains. AR 018332. Only after further study and public and agency coordination, the Preferred Alternative Corridor was selected and carried forward to the Alternative Alignment Study. See AR 18706, AR 018333.

b. The Transportation Mode Study.

The Transportation Mode Study sought to determine the best alternative of two possible scenarios within the study area: one that included build-out of Segment E (“Build”) and one that did not (“No-Build”). The no-build alternative includes all committed transportation improvements found in the 2025 Regional Transportation Plan (“RTP”)⁸ without the construction of various Grand

⁸The Houston-Galveston Area Council (“H-GAC”), designated by the state of Texas as the metropolitan planning organization charged with coordinating transportation for the Houston area, develops RTPs to help local and state governments and transportation agencies identify transportation investments that will improve mobility, increase safety, and complement community development plans. H-GAC’s 2025 RTP identifies the addition of tolled facilities, including the Grand Parkway, as necessary to address current congestion and future growth in the Houston Region (H-GAC, 2005a). AR 017972.

Parkway segments, including Segment E. AR 018334. These committed improvements include bus transit, HOV lanes, rail feasibility, and new planned roadway construction, as well as other improvements that are already a part of the ongoing plan for the continued operation of the existing roadway system. *Id.* The FEIS concluded that the no-build alternative would lead to some improvements in traffic congestion, travel times, and safety; but that overall it would not adequately address the needs for and purposes of the Grand Parkway project. AR 018339. For example, current highways within the study area currently operate beyond capacity and are designed for local traffic desiring to make shorter trips. AR 018334. Even with currently planned traffic management measures such as traffic signal coordination and intersection improvements, roads such as State Highway 6/Farm-to-Market Road 1960 will not be adequate to handle the rapid growth projected for Harris County over the next 18 years. *Id.* Nevertheless, the no-build alternative was retained as a basis for comparison with the alternative transportation modes carried forward for detailed study as required by 40 C.F.R. § 1502.14(d).

On the other hand, the traffic and transportation analysis, which included a Congestion Mitigation Analysis, AR 018869–018885, revealed that building Segment E would provide system linkage, expand capacity to ease travel around Houston, improve safety, and provide relief from barriers to economic development. AR 018342. As a result, the Build Alternative was selected as the Preferred Alternative Transportation Mode. AR 018349.

c. The Alternative Alignment Study.

The Alternative Alignment Study represents the last phase in the process of carefully narrowing down the exact route of Segment E. Within the entire project area, three broad, 5,000-foot wide potential corridors were identified for environmental impact study. AR 018326. Once the

corridor was selected, as described above, the next step became identifying the exact route of the Segment E roadway within that corridor. AR 018350. The Study Team developed three alternative alignments that avoid or minimize potentially adverse environmental effects while still meeting the need for and purpose of the project. *Id.* Hybrid combinations of alternative alignments were considered in areas called “reaches.” Reaches are found where two or more alternative alignments overlap within a corridor due to environmental constraints. *Id.* Different combinations of alignments within each reach were then screened and analyzed for potential independent and cumulative effects. *Id.* The Study Team then assessed feedback from public workshops, Table 2-8 at AR 018355, and analyzed the potential environmental impacts of each alternative alignment on floodplains and wetlands, Table 2-7 at AR 018353. *See also* AR 019173. Due to Houston’s history of flooding, the Study Team first considered avoiding or minimizing the impact particularly on wetlands. AR 018352. If wetlands could not be avoided by any of the proposed alternatives, only then were mitigation measures considered with the help of a detailed drainage study. *See* AR 018513–018524. In the end, the Preferred Alternative Alignment selected for Segment E of the Grand Parkway was not just one of the original three alignments proposed, but rather a combination of several alternative alignments. AR 018357.

As a result of the comprehensive Corridor, Transportation Mode, and Alternative Alignment studies, Defendants more than adequately analyzed all reasonable alternatives for Segment E. As stated above, Defendants were not required to assess all conceivable alternatives, but rather only those that fall within the scope and purpose of the project. *Native Ecosystems Council*, 428 F.3d at 1246. Indeed, mere consideration of no-build and build alternatives was sufficient to satisfy NEPA’s regulatory requirements. *Id.* at 1245-46. Here, Defendants considered a no-build scenario before

concluding that building Segment E met the needs for and purpose of the project, AR 018349, and then went on to consider four separate corridor alternatives, Table 2-1, AR 018329, and three alternative alignments, AR 018357–018358. Each study then considered public comments on each alternative and reported the resulting design revisions, and then delineated the reasons for ultimately coming to a consensus on the preferred alternative. *See* AR 018332-018333.

Defendants have more than met the Fifth Circuit’s directive that an EIS alternatives analysis be “sufficient to permit a reasoned choice among different courses of action.” *Van Winkle*, 197 F. Supp. 2d at 598 (quoting *Westphal*, 230 F.3d at 174). Even if this Court finds that the agency’s analysis could have been better, the Court should not upset the agency’s decision because “the agency’s path may reasonably be discerned.” *Alaska Dep’t of Envtl. Conservation v. Envtl. Prot. Agency*, 540 U.S. 461, 497, 124 S. Ct. 983, 1007 (2004).

2. Defendants thoroughly analyzed cumulative traffic impacts of the various alternatives.

Plaintiff further alleges that Defendants’ analysis failed to consider the cumulative traffic impacts of various alternatives in combination with other planned or potential projects. Pl.’s Compl. ¶ 55. On the contrary, Defendants’ FEIS studied and presented No-Build and Build Alternative average daily traffic (“ADT”) volumes for Segment E for the base year, 2000, and for the years 2010, 2015, and 2025. AR 018333-018358, *see generally*, AR 017947-017969. For example, Table 2-4 provides the ADT for the No-Build Alternative in 2025, and assumes that all planned improvements in the 2025 RTP are in place, excluding the Grand Parkway Segments. AR 018345, *see generally*, AR 017958. Similarly, Table 2-4 illustrates a condition in which all planned improvements in the 2025 RTP are in place, including the Grand Parkway. *Id.* Table 2-4 shows that existing and future interstate highways, arterial roads, and collector roadways all show a decrease in volume if the Grand

Parkway is constructed as planned, underscoring the need for Segment E. AR 017962.

3. Defendants did not engage in segmentation or piecemeal planning.

Plaintiff asserts that Defendants engaged in “segmented, piecemeal planning” in the alternatives analysis. Pl.’s Compl. ¶ 56. It has been judicially recognized that because highway systems are unique and require flexible planning, highway agencies must be allowed to divide projects into workable segments. *Indian Lookout Alliance v. Volpe*, 484 F.2d 11, 19 (8th Cir. 1973); *Patterson v. Exxon*, 415 F. Supp. 1276, 1283 (D. Neb. 1976). However, courts will generally disapprove of segmented highway projects when the challenged segment cannot function alone as an independent facility. See generally *Piedmont Heights Civic Club, Inc. v. Moreland*, 637 F.2d 430, 339-342 (5th Cir. 1981), *Indian Lookout Alliance*, 484 F.2d at 18-19. This means the segment lacks independent utility or does not have two logical termini. *Piedmont Heights*, 637 F.2d at 440.

The courts’ reasonable concern is that, even though the challenged segment might be environmentally acceptable, the fact that it cannot function by itself could permanently commit the highway agency to constructing a connecting segment that would be environmentally unsound. *Id.* at 441. In other words, a segment that is dependent on other highway segments for its utility could, by necessity, foreclose the opportunity to consider other viable alternatives. *Save Barton Creek Ass’n v. Fed. Highway Admin.*, 950 F.2d 1129, 1140 (5th Cir. 1992). Therefore, when a segment has independent utility, segmentation can be justified even if the termini are not entirely logical. See *Piedmont Heights*, 637 F.2d at 441 (court upheld segmentation of Atlanta highway system by stressing importance of challenged segment’s independent utility in face of questionable termini); *Ass’n Concerned About Tomorrow, Inc. v. Dole*, 610 F. Supp. 1101, 1108 (N.D. Tex. 1985) (“the illogic of a terminus is at best a secondary inquiry, shadowed by the independent utility inquiry”).

However, an extremely illogical terminus will likely result in judicial disapproval of a segment—for example, when one terminus is “literally in the middle of the woods.” *Patterson*, 415 F. Supp. 1283.

Two Fifth Circuit decisions illustrate the trend that courts upholding highway segmentation in metropolitan areas will give greater weight to the independent utility factor. In *Piedmont Heights*, the court stated that each of the proposed highway’s segments, although all part of an overall transportation plan, were properly segmented as separate projects because each segment relieved traffic congestion and improved traffic flow in its respective area. 637 F.2d at 441. In *Save Barton Creek*, the court held that the challenged segment of the “Austin Outer Loop” would have substantial independent utility because it would “serve a highly useful urban traffic purpose even if no other segments of the Outer Loop are ever constructed.” 950 F.2d at 1141.

The FEIS makes clear that Segment E is needed as much for its role in the Grand Parkway’s overall strategic plan as it is for its benefit to the local area it traverses. The Grand Parkway is divided into eleven segments to facilitate planning, design, and construction because limited state and federal funding provides no assurance that all of the segments will be constructed. AR 018303. While each segment supports the overall purpose of the Grand Parkway, Segment E also supports the same purpose relevant to transportation needs specific to northwest Harris County and southern Montgomery County. *Id.* The goal of Segment E is to improve system linkage and traffic flow, expand traffic capacity to meet and accommodate future demand resulting from economic growth, and improve highway mobility and safety. AR 018314. For that reason, and to ensure independent utility in compliance with FHWA regulations,⁹ Segment E’s termination points were chosen—one

⁹23 C.F.R. § 771.111(f) states: In order to ensure the meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each EIS . . . shall: (1) connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) have independent utility or independent significance, i.e., be usable and be a reasonable

at IH-10¹⁰ and the other at US 290—in order to connect two existing major transportation routes. AR 018303.

A similar segmentation argument was made against FHWA and the New Hampshire Department of Transportation while those agencies were in the process of conducting an EIS for the extension of I-93. *Conservation Law Found.*, 630 F. Supp. 2d at 188. The plaintiff accused the defendants of “segmented, piecemeal planning” because, in analyzing a commuter rail as a possible alternative, it did not coordinate with the State of Massachusetts (through which the rail would have to pass) before excluding the rail from consideration as a viable alternative. *Id.* at 201. The State instead decided instead to proceed with a four-lane road alternative. *Id.* Addressing this argument, the court referred to the administrative record which revealed that the defendants had conducted a thorough analysis of several rail options before concluding that a rail service in general would likely not be adequate to address the transportation needs and safety deficiencies within the I-93 corridor. *Id.* at 192-93. While the court acknowledged that coordination with Massachusetts during evaluation of rail alternatives could have yielded other viable rail options, the fact that the defendants had concluded that a rail option would not meet the needs of the project precluded a finding of a NEPA violation. *See id.* at 204.

An agency’s decision to reject an alternative which is excluded after studies determine that it does not meet the needs of the project should be given deference in light of the agency’s expertise and policymaking role. *City of Alexandria v. Slater*, 198 F.3d 862 (D.C. Cir. 1999); *Trout Unlimited v. Morton*, 509 F.2d 1276, 1286 (9th Cir. 1974); *see also Nat’l Wildlife Fed. v. Fed. Energy*

expenditure even if no additional transportation improvements in the area are made; and (3) not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

¹⁰Approximately one mile of Segment E, from IH-10 to Franz Road, was constructed with Segment D.

Regulatory Comm'n, 912 F.2d 1471, 1483 (D.C. Cir. 1990) (agency need not explore every remote and speculative alternative in detail). Defendants' FEIS states that Segment E is needed to address inefficient roadway system linkage between communities, current and future transportation capacity demand, safety concerns, and growing economic development in the area. AR 018312. Therefore, several alternatives considered in the Corridor, Transportation Mode, and Alignment Studies were excluded for not meeting these express needs. For example, while the No-Build Alternative incorporated planned and committed roadway improvements such as HOV lanes, park-and-ride lots, and employee trip-reduction programs, all showed improvement of current roadway conditions. However, these improvements were rejected because they would not on their own adequately handle future projections of current problems such as roadway congestion. AR 018340.

The systematic approach to the alternatives analysis allowed TxDOT and FHWA to separately emphasize avoidance and ensure that all alternatives minimized adverse impacts to the greatest extent possible. AR 017939. Additionally, this approach enabled evaluation of alternatives in several stages so that only the most practicable, those that met the need for and purpose of the project, and those that had the potential to minimize adverse environmental impacts, were advanced to the next phase of study. AR 017953.

Additionally, Defendants' approach to the alternatives analysis, and the FEIS in general, conforms to NEPA, which requires that agencies "utilize a systematic, interdisciplinary approach" to "decision-making which may have an impact on man's environment." 42 U.S.C. § 4332(A). Throughout the EIS process Defendants coordinated decision-making with several resource agencies. For example, in considering the proper alternative in the Corridor Study, Defendants relied on comments submitted by USACE, USFWS, TPWD, and the Study Team. Table 2-2 at AR 018331.

In determining whether an agency decision was arbitrary or capricious, the Court's only task is to determine whether the agency considered the relevant factors and articulated a rational connection between the facts found and the choice made, not to substitute its judgment for that of the agency. *Bowman Transp., Inc. v. Arkansas-Best Freight Sys., Inc.*, 419 U.S. 281, 285-286, 95 S. Ct. 438, 442 (1974); *Overton Park*, 401 U.S. at 416, 91 S. Ct. at 824. As shown above, the record is replete with evidence that TxDOT and FHWA thoroughly reviewed and considered all relevant information and made calculated, reasoned decisions with regard to each alternative.

B. Defendants fully complied with NEPA, NEPA regulations, and the APA in assessing impacts on hydrology, drainage, floodways, and floodplains.

1. Defendants thoroughly and accurately assessed, and indeed took a “hard look” at, potential impacts on hydrology, drainage, floodways and floodplains.

Plaintiff alleges that Defendants failed to accurately assess the impacts of the proposed project on hydrology, drainage, floodplains, and floodways, and that any assessment made by Defendants regarding these items was supported by inaccurate and non-quantitative information. Pl.’s Compl. ¶¶ 58, 62, 64. In short, Plaintiff alleges that Defendants have failed to take a “hard look” at floodplains issues. Pl.’s Compl. ¶ 63.

The purpose of the hydrology and drainage impact analysis is to anticipate how the Grand Parkway will affect drainage patterns. Specifically, Defendants analyzed how the increase in impervious pavement surface area attributable to the highway project would interfere with the ability of local streams and creeks to carry rainfall runoff away from the area.¹¹ All such streams in the project area flow west to east and are part of the 3,400 square-mile San Jacinto River Basin. AR

¹¹The majority of information relevant to this phase of study and relied on by the Study Team was drawn from state and local databases and other existing sources. AR 018308.

018514. All alternative alignments run north to south and thus would cross perpendicular to the streams by way of bridges. AR 018514–018515. The FEIS acknowledges that the highway structure would increase surface runoff, but that the increase would be negligible because TxDOT guidelines and local ordinances require the use of drainage (mitigation) facilities to be built in conjunction with the highway, and such facilities are currently planned. *Id.*

Similarly, Defendants performed the floodway and floodplain analysis using guidance from federal regulations and advisory memos—e.g., U.S. Department of Transportation 5650.2 Floodplain Management and Protection; FHWA’s Technical Advisory T6640.8A, Guidance for Preparing and Processing Environmental and Section 4(f) Documents (FHWA, 1997); and 23 C.F.R. § 650 Subpart A, “Location and Hydraulic Design of Encroachment on Floodplains.” AR 018516. These authorities require Defendants to perform a Location Hydraulics Study to address the risk of flooding associated with the highway, the potential impacts on natural and beneficial floodplain values, the support of incompatible development within the floodplain, and measures to minimize floodplain encroachments. *Id.* The regulations also require the identification of the base (100-year) floodplain. *Id.* The FEIS includes lengthy discussion of beneficial floodplain values, possible encroachments to floodways by the project, and mitigation measures to be implemented to reduce the highway’s impact. See AR 009924-010024; AR 022085-023153; AR 023409-023434 ; AR 023774-024849.

2. Defendants’ assessment of hydrology, drainage, floodway and floodplain issues is supported by accurate, quantitative information.

Plaintiff claims that the information used by Defendants to conduct the floodplains impact analysis was neither quantitative nor accurate. Pl.’s Compl. ¶¶ 58,62, 64. However, it is clear from a reading of the FEIS that the information used was accurate and quantitative. Using maps and acreage totals, the FEIS accurately assessed the floodplain and floodway impact of each alternative

alignment. AR 018523. Mitigation measures such as cross drainage structures and long, elevated bridge structures were adequately described, and will be designed according to FHWA and TxDOT standards and reviewed by local, state, and federal regulatory agencies. *Id.* In addition, further mitigation measures will be taken in the final design phase of the highway. AR 018524. Defendants took the requisite “hard look” at effects on hydrology, drainage, floodways and floodplains.

Plaintiff also alleges that the FEIS was based on a digital flood insurance rate map (“DFIRM”) that is likely to be modified in the future, and, therefore, the “feasibility of the entire roadway as designed” is now in question and Defendants must conduct a supplemental assessment to the FEIS. Pl.’s Compl. ¶¶ 65–68. In assessing floodplain issues, Defendants used the current Federal Emergency Management Agency (“FEMA”) DFIRM. A new DFIRM was promulgated prior to the completion of the FEIS, and Defendants considered the revised DFIRM in the completion of the Segment E FEIS issued by FHWA and TxDOT in November 2007. New floodplain data was promulgated by Harris County after completion of the FEIS, and Defendants considered the revised floodplain data in the Re-evaluation of the FEIS issued by FHWA and TxDOT in June 2009.¹²

Under section 7.4 of the Re-evaluation, titled “Waterbody Modifications and Floodplains,” Defendants specifically addressed the impact of the same potential DFIRM revision referred to by the Plaintiff—the one resulting from a proposed Physical Map Revision (“PMR”) of the Upper Cypress Creek watershed area. AR 023736. After a careful comparative analysis of the pre- and post-revision floodplains, Defendants concluded that, although the revision suggested a change in the amount of the 100-year floodplain encroachment, “[t]he 100-yr floodplain acreage was not the

¹²The Re-Evaluation was conducted in response to a design revision that occurred after FHWA’s issuance of the ROD. See 23 C.F.R. § 771.129.

primary reason for the selection of a preferred corridor. . . and the increase in the amounts of 100-yr floodplain acreage due to the Cypress Creek PMR would not change the reasons for the selection of a preferred corridor.” AR 023736–023737. In addition, the Re-evaluation goes on to state that the final hydraulic design of the roadway will be done with the most recent floodplain data available, including the data presented by the Cypress Creek PMR. AR 023739. Finally, the Re-evaluation concludes that the Selected Alternative Alignment is the only practicable alternative for limiting floodplain encroachment because the floodplain boundaries (before and after the Cypress Creek PMR) traverse the entire study area. *Id.*

C. Defendants fully complied with NEPA, NEPA regulations, and the APA in their study of significant impacts and indirect effects on wetlands.

Plaintiff alleges that Defendants did not go far enough with their analysis of Segment E’s environmental impact on wetlands. Specifically, Plaintiff accuses Defendants of failing to identify the full extent of Segment E’s wetland impact, alternatives for avoidance, and any mitigation efforts being employed. Pl.’s Compl. ¶¶ 69-72. Plaintiff also maintains that Defendants did not fully address mitigation efforts. Pl.’s Compl. ¶ 73. These claims ignore a substantial amount of evidence in the record that confirms the sufficiency of the wetlands analysis.

1. Defendants fully disclosed potential impacts to wetlands.

The FEIS discusses the quality and function of the wetlands that currently exist within the Segment E project area, AR 018391, and then analyzes possible avoidance, minimization, and mitigation measures that may be put into action within the Segment E project area once the project is actually underway. AR 018499–018502. From the beginning, the analysis acknowledges that the removal of existing wetlands for the construction of Segment E could result in increased sediment

and nutrient runoff that could impact nearby wetlands and receiving waters over time, as well as modify water chemistry and possibly diminish suitable habitat for aquatic species. AR 018492.

Four major levels of investigation were employed to identify wetlands within the Segment E project area, as defined by USACE 1987 Wetland Delineation Manual, allowing the project team to avoid wetland impacts where possible and minimize unavoidable impacts. AR 018492. The first two levels consisted of reviewing infrared aerial photographs, National Wetland Inventory maps, and published soil survey maps, as well as conducting a helicopter survey to classify potential wetlands as forested or non-forested. AR 018493. The third level featured a ground survey, and the fourth level consisted of a formal wetland delineation of the Preferred Alternative Alignment, the results of which were verified by the USACE Galveston District. *Id.*

2. Defendants fully addressed mitigation efforts.

The preferred means of mitigation is avoidance, which is an inherent part of the FEIS's analysis of alternatives. AR 018499. An inventory of all environmental resources, including wetlands and prior converted wetlands, was taken so that an alignment could be chosen that might avoid most, if not all, of the resources. AR 018326. However, some adverse impacts on wetlands simply cannot be avoided. Recognizing this, the FEIS discusses the need for minimization of potentially adverse impacts and compensation for those remaining adverse impacts that cannot be further reduced. AR 018499. Given that the FEIS precedes the design phase of the highway structure, a single, definitive mitigation measure was not selected as the most appropriate. Rather, Defendants examined various mitigation strategies that might be needed once design and construction is underway. Such measures include, but are not limited to, decreasing the amount of fill placement, the implementation of an erosion and sedimentation plan, the use of retention basins,

and maintaining flow patterns to ensure wetland hydrology in spite of roadway design requirements. AR 018499. Where on-site restoration of impacted wetland habitat cannot be achieved, resource functions and values may be mitigated through off-site measures, such as expanding existing wetlands; restoration of hydrophytic species; or regulating water levels in streams—all of which would include post-project monitoring. *Id.*

The compensatory mitigation plan created by natural resource agencies such as EPA and the Texas Commission on Environmental Quality (“TCEQ”) will be submitted to the USACE before the issuance of a Section 404 permit¹³ for Segment E. AR 018500. The plan will investigate and evaluate several viable wetland mitigation plans. AR 018500-018501. Mitigation discussions with natural resource agencies are contained in Appendix B of the FEIS. AR 018791-018847.

D. Defendants fully complied with NEPA, NEPA regulations, and the APA in their study of significant air impacts and safety risks.

Plaintiff alleges that Defendants failed to accurately assess Segment E’s potential impact on air toxics pollution, the potential cumulative air quality impacts of Segment E in combination with air pollution from other sources, and the potential impacts on the human environment with regard to the health effects of highway air pollution, including the health effects associated with living adjacent to a major roadway. Pl.’s Compl. ¶¶ 74-78. In addition, Plaintiff alleges that Defendants failed to present information needed to allow agencies, decision-makers, and the public to understand

¹³When mechanized clearing is employed in an aquatic area, a permit may be required from USACE pursuant to Section 404 of the Clean Water Act (“CWA”), 33 U.S.C. § 1344. Section 404 regulates the discharge of dredged or fill material or excavation within the waters of the United States, and authorizes USACE to issue permits for such actions. Waters of the United States are defined by the CWA as “rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands.” Wetlands are defined by the CWA as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions.”

project impacts on air quality and public health, and that any quantitative or qualitative air quality analysis conducted by Defendants was deficient and inadequate. Pl.'s Compl. ¶¶ 76, 80.

1. Defendants accurately assessed Segment E's air quality/health impacts to the fullest extent possible.

The FEIS considered air quality and health and safety impacts both from construction activities and from expected future use of Segment E of the Grand Parkway. Defendants disclosed the nature and source of highway pollutants, specifically in the Houston area, as well as the various agencies that track them. AR 018377. To study the effect and level of future air pollution, TxDOT's 2006 *Air Quality Guidelines* suggested the use of EPA's MOBILE6 highway vehicle emission factor model, and CALINE3, a line source dispersion model specifically designed for the prediction of pollutant concentrations in the vicinity of highways. AR 018456. Both were used to estimate future carbon monoxide ("CO") levels in 2012 and 2025. *Id.* The models indicate that local concentrations of CO are not expected to exceed national standards at any time along Segment E, and further, that local CO concentrations are not expected to exceed national standards should the four contiguous segments (E, F-1, F-2, and G) be built. AR 018547. These conclusions are discussed in detail in the FEIS. AR 018375-018381, 018456-018474, 018559, 018579. The FEIS recognizes that emissions from diesel-powered and other construction equipment would occur under the Build Alternative for Segment E, but that these construction emissions would only be temporary. AR 018548.

A full and fair disclosure of health impacts of the proposed action is required by 40 C.F.R. § 1508.8. Plaintiff claims that Defendants failed to disclose the health effects associated with living adjacent to a major roadway used by trucks and automobiles. Pl.'s Compl. ¶ 78. This assertion ignores the FEIS's discussion of "Existing Environment/Proximity to Roadways and the Potential to Impact Health." AR 018381. In that section, Defendants acknowledge the lack of professional

consensus on concentration levels needed to impact health, but note that research consistently shows that pollutant levels drop off substantially as the distance from the roadway increases. *Id.*

The FEIS provides a detailed, quantitative analysis on Segment E's potential impact on MSAT emissions, including emission levels for each alternative alignment. AR 018458–018468. Plaintiff will not find conclusions on how the predicted emission levels will affect human health in the study because an accurate prediction of the health impacts of the changes in emission levels attributable to the future Segment E is essentially impossible. Defendants explain that, in addition to lack of scientific consensus, technological constraints make it difficult to accurately calculate both annual concentrations of MSAT near roadways and exposure periods of individuals to at specific locations. AR 018470. Clearly, the study of MSAT concentrations, exposures, and health impacts becomes difficult and uncertain, rendering any results useless to decision-makers. AR 018471. Nevertheless, in accordance with 40 C.F.R. § 1502.22(b), pertaining to unavailable information, Defendants presented information on current levels of MSAT, estimated future levels of MSAT, and assumptions on what effect the Grand Parkway Segment E project may have on MSAT levels. *Id.*

2. Defendants provided agencies, decision-makers, and the public with accurate and adequate information on potential impacts on air quality and health.

Defendants accurately considered and reported all available information on Segment E's air and health impacts, and then presented the information in a manner conducive to logical decision-making. Defendants identified air quality as an environmental concern that would be affected by the Segment E project, and acknowledged that air pollution could negatively affect human health and the ecosystem. AR 018375. The EPA sets national ambient air quality standards (“NAAQS”) for six air pollutants to protect health and the environment, and EPA determined that Houston was in compliance with all six NAAQS except ozone. *Id.* In addition, the FEIS explains MSAT and where

they originate. AR 018377–018378. Finally, the FEIS summarizes scientific data gathered from TCEQ air quality monitors. AR 018379–018381.

After disclosing the sources of air quality impacts from the Segment E project, the FEIS then fully assesses the air quality consequences of the project with regard to the pollutants and standards previously set out in the identification section. Using gathered data and EPA model estimates, the FEIS provides various explanatory tables and graphs that clearly illustrate the project’s air quality impacts over time in the study area, including, but not limited to, Segment E CO concentrations, current and projected MSAT emissions for the build and no-build alternatives, total vehicle miles traveled (“VMT”) on Segment E, and comparison models that estimate levels of various individual pollutants in the study areas. AR 018458–018466.

Courts interpreting NEPA require an agency to take a “hard look” at the environmental consequences of its actions; but NEPA does not mandate particular results, only the necessary process. *Van Winkle*, 197 F. Supp. 2d at 598. An EIS must provide detail sufficient to allow those who did not participate in its preparation to understand and consider the pertinent environmental influences involved. *Id.* (quoting *Westphal*, 230 F.3d at 174). Anyone reading this FEIS, both experts and laypersons alike, would be able to form their own conclusions about Segment E’s specific direct and indirect air quality effects. Defendants outlined the current state of air quality; explained the federally required pollution standards, including specific air pollutants, that must be evaluated; explained the data gathering process and illustrated the results; and acknowledged that scientific constraints present an obstacle to predicting health effects, but explained that the available data indicates the project will remain within national environmental standards. AR 018456-018473.

E. Defendants fully complied with NEPA, NEPA regulations, and the APA in their study of noise impacts.

Plaintiff alleges that the FEIS underestimates the potential noise impacts of the project, and that Defendants failed to fully consider all reasonable noise abatement measures, including noise absorbing pavement and vegetation barriers. Pl.’s Compl. ¶¶ 82-83. Plaintiff essentially alleges Defendants did not completely analyze noise impacts in the FEIS.

A thorough noise analysis was conducted dating back to well before the selection of a preferred alternative alignment. In accordance with TxDOT’s *Guidelines for Analysis and Abatement of Highway Traffic Noise*, AR 001788-001846, a preliminary noise analysis was performed in 2002 to determine future traffic-generated noise levels at various receiver locations along each of the proposed alternative alignments of Segment E. AR 018475. Then, a subsequent similar analysis was performed at locations along the Preferred Alternative Alignment, after it was selected. *Id.* Existing noise levels were measured through a noise measurement program, and future noise levels were estimated through modeling with the FHWA-approved Traffic Noise Model (“TNM”). The TNM considered, among other things, the number, type, and speed of vehicles; highway alignment and grade; and the locations of activity areas likely to be impacted by the associated traffic noise. *Id.* Receivers of traffic noise were placed to represent the range of land use activity areas adjacent to the proposed preferred alternative alignment. AR 018479.

In accordance with TxDOT’s Noise Guidelines, noise abatement measures were considered for all impacted receiver locations. AR 018480. Primary consideration was given to exterior areas where frequent human use occurs and lower noise levels would be beneficial. *Id.* To this end, the FEIS considered and discussed four separate noise abatement possibilities—traffic management, noise barriers, alteration of horizontal and/or vertical highway alignments, and noise buffer zones.

AR 018480–018481. Section 23 C.F.R. § 772.13(c) lists various types of measures that “may be incorporated” to “reduce traffic noise,” but that section does not specifically require use of “noise absorbing pavement” or “vegetation barriers.” Each abatement measure was analyzed in terms of feasibility and reasonableness, as required by 23 C.F.R. § 772.13(d). Feasibility of an abatement measure deals primarily with physical environmental elements such as topography and drainage, and whether the measure would reduce sound levels by a minimum of five dBA.¹⁴ Reasonableness determinations are based primarily on cost effectiveness, specifically, whether or not an abatement measure would create a noticeable benefit, measured by a noise receiver, for \$25,000 or less per receiver benefitted. AR 018480. According to the analysis, none of the abatement measures for Segment E met the criteria. For example, a free standing wall or earth berm, both common noise barriers, would require expending more than \$25,000 in order to reduce noise levels at impacted receivers by five dBA or more. AR 018481.

F. Defendants fully complied with NEPA, NEPA regulations, and the APA in their consideration of indirect, secondary, and cumulative impacts.

Plaintiff alleges that Defendants failed to document, analyze and consider adequately the full range of significant direct, indirect, secondary, and cumulative environmental impacts of the project in conjunction with past, present and reasonably foreseeable future actions, all in violation of NEPA and the CEQ’s implementing regulations. Pl.’s Compl. ¶ 85. Plaintiff also claims Defendants’ analysis was arbitrary, capricious, and an abuse of discretion in violation of the APA. *Id.*

¹⁴A dB is a decibel, and a dBA is an A-weighted decibel level. AR 001800-001801. When the FEIS says, for example, “a measure can reduce sound levels by as much as 4.5 dBA Leq,” this means sound levels will be reduced 4.5 times 1 decibel of equivalent sound level. AR 018481.

NEPA claims are subject to judicial review under Section 706 of the APA. *Ohio Valley Envtl. Coal. v. Aracoma Coal Co.*, 556 F.3d 177, 189 (4th Cir. 2009). Agency decisions will be upheld or set aside by the court based on the “arbitrary and capricious” standard of review. *Louisiana*, 207 F. App’x at 380. A decision is arbitrary or capricious “only when it is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Wilson v. U.S. Dep’t of Agric.*, 991 F.2d 1211, 1215 (5th Cir. 1993); *see also Hasie v. Office of the Comptroller of the Currency of the United States*, 2008 WL 4549881 (N.D. Tex. May 9, 2008). In other words, to sustain an agency action, only a rational connection between the facts found and decisions made is required. *Louisiana*, 207 F. App’x at 380. In matters involving complex predictions based on special expertise, this standard is highly deferential with a presumption in favor of finding the agency action valid, in that the court may not substitute its judgment for that of the agency. *Ohio Valley*, 556 F.3d at 192 (citing *Baltimore Gas*, 462 U.S. at 103, 103 S. Ct. at 2255).

Defendants committed seventy pages of the FEIS to the analysis of indirect and cumulative effects of Segment E. AR 018571-018639. The Study Team determined an Area of Influence (“AOI”), a geographic boundary within which possible indirect and cumulative development and potential cumulative effects could occur. AR 018028. An Expert Panel consisting of twenty-eight knowledgeable members of the community, as well as transportation and planning professionals, was assembled to assist the Study Team in developing reasonable and potential scenarios of future land use maps and associated demographics for Segment E. AR 018029. Land uses were then separated into three classes and evaluated in terms of their responses to change and capacity to withstand imposed stresses, among other things. *Id.* The resulting “land use forecast” process assessed future

land use changes by predicting where, when and in what manner land within the AOI might develop under both the No-Build and Build Alternatives. AR 018031.

Indirect effects were assessed based on guidance described in the NCHRP 466 Report. AR 018034. Nineteen resource-specific indirect impacts were evaluated within the AOI, including impacts on land use, soil, social activity, economics, pedestrians, air and water quality, noise, wildlife, wetlands, floodplains, rivers, cultural resources, and aesthetics, among others. AR 018035–018040. Where possible, the Study Team quantitatively determined the induced or indirect growth effect of the Build Alternative compared to the No-Build Alternative. AR 018035.

The Study Team consulted position papers and technical guidance from a variety of sources for its study of the project’s potential cumulative effects. AR 018040. While recognizing that there is no standard approach or methodology for pursuing a cumulative effects analysis, the Study Team followed an eight-step approach based on TxDOT (2006b) *Guidance on Preparing Indirect and Cumulative Impact Analyses*. AR 018041. Steps 1 through 3 identify the study area, history, and health of each resource considered in the analysis; steps 4 through 7 involve identifying and analyzing direct, indirect, and potential cumulative effects; and step 8 involves assessing and discussing mitigating adverse effects and developing mitigation strategies as appropriate. *Id.*

Plaintiff asserts that Defendants failed to document, analyze and consider adequately the full range of significant direct, indirect, secondary, and cumulative environmental impacts of the project in conjunction with past, present and reasonably foreseeable future actions. CEQ Regulations state that in determining what information is necessary for a cumulative effects analysis, agencies should use scoping to focus on the extent to which information is “relevant to reasonably foreseeable significant adverse impacts.” 40 C.F.R. § 1502.22. Further, courts have relied on CEQ guidance

which states that “[b]ased on scoping, agencies have discretion to determine whether, and to what extent, information about the specific nature, design, or present effects of a past action is useful for the agency’s analysis of the effects of a proposal for agency action and its reasonable alternatives.”

League of Wilderness Defenders -- Blue Mountains Biodiversity Project v. U.S. Forest Serv., 549 F.3d 1211, 1218 (9th Cir. 2008)(authorized agencies may analyze past cumulative impacts in the aggregate or by any other means they deem appropriate); *see also Habitat Educ. Ctr., Inc. v. U.S. Forest Serv.*, 593 F. Supp. 2d 1019, 1032 (E.D. Wis. 2009)(“The amount of detail in which past actions must be discussed is a matter that is left to the agency’s discretion.”). Defendants followed NEPA and the APA, as well as established guidance, in conducting their indirect and cumulative effects analysis. The court may not substitute its judgment for that of an agency acting reasonably. *Vermont Yankee*, 435 U.S. at 555, 98 S. Ct. at 1217 (1978); *Bowman Transp., Inc.*, 419 U.S. at 285-286, 95 S. Ct. at 442; *Overton Park*, 401 U.S. at 416, 91 S. Ct. at 824.

G. Defendants conducted extensive public involvement activities that informed their decision.

The conclusions reached by Defendants in the FEIS are based in large part on extensive scoping efforts. An initial Public Scoping Meeting was held in September 1993 to gather information from oral and written comments covering environmental, biological, and socioeconomic issues. AR 018641. In August 1999, three preliminary public workshops were held during which citizens were asked to complete a questionnaire regarding their viewpoints on existing traffic congestion and expected usage of the Grand Parkway, if constructed. *Id.* During these meetings several public concerns over Segment E were identified, including but not limited to effects to the Katy Prairie habitat and wildlife, increase in traffic pollution, population growth. AR 018641–018642. Subsequently, three more public scoping meetings were held in February 2000,

during which the public was informed on the project, alternatives were discussed, and public input was received. AR 018642. In one meeting, one-third of those in attendance lived within the study area and a majority said they would use Segment E, if built. *Id.*

VII. CONCLUSION AND PRAYER

The Administrative Record in this case clearly demonstrates that Defendants considered all impacts of this project and made extraordinary efforts to involve the public and keep them informed. The agency examined all reasonable alternatives and their potential impacts. Because Defendants in this case have not acted arbitrarily or capriciously in making their well-supported decision, and have taken the requisite “hard look,” their decision should be affirmed. *Kleppe*, 427 U.S. at 410.

Defendants have met the burden of showing this Court that there is no genuine issue of any material fact, and State Defendants’ Motion for Summary Judgment should be granted.

WHEREFORE, based on the foregoing, State Defendants respectfully pray that this Court grant State Defendants’ Motion for Summary Judgment, dismiss this action, and grant State Defendants all other relief to which they may be justly entitled.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I certify that on the 20th day of January 2010, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send notification of such filing to the following: Marisa Perales, LOWERRE, FREDERICK, PERALES, ALLMON & ROCKWELL, 707 Rio Grande, Ste. 200, Austin, TX 78701; Brad Rockwell, LOWERRE, FREDERICK, PERALES, ALLMON & ROCKWELL, 707 Rio Grande, Ste. 200, Austin, TX 78701; Linda J. Amidon, Office of Chief Counsel, Federal Highway Administration, 60 Forsyth St. SW Suite 8M5, Atlanta, GA 30303-8814; Jack F. Gilbert, Office of Chief Counsel, Federal Highway Administration, 60 Forsyth St. SW Suite 8M5, Atlanta, GA 30303-8814.

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